

Datasheet for ABIN7566252

IL23 Protein (AA 22-196, AA 23-335) (Fc Tag)



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Overview

Quantity:	50 µg
Target:	IL23
Protein Characteristics:	AA 22-196, AA 23-335
Origin:	Mouse
Source:	CHO Cells
Protein Type:	Recombinant
Purification tag / Conjugate:	This IL23 protein is labelled with Fc Tag.

Product Details

Purpose:	IL-23 (mouse):Fc (LALA-PG)-KIH (human) (rec.)
Cross-Reactivity:	Mouse
Characteristics:	IL-23A/p19 (aa 22-196) (mouse):Fc (LALA-PG) Knobs and IL-12B/p40 (aa 23-335) (mouse):Fc (LALA-PG) Holes form the IL-23 (mouse):Fc (LALA-PG)-KIH (human) (rec.) using the Knobs-into-Holes technology (see reference: J.B. Ridgway, et al., Protein Eng. 9, 617 (1996)).
Purity:	>95 % (SDS-PAGE)
Endotoxin Level:	<0.01EU/µg purified protein (LAL test).
Grade:	Animal-Free

Target Details

Target:	IL23
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Target Details

Alternative Name: IL-23 ([IL23 Products](#))

Background: IL-23 (mouse):Fc (LALA-PG) Knobs-into-Holes (human) (rec.), IL-23p19, IL-23alpha, Interleukin-12 Subunit beta, IL-12 Subunit p40

Interleukin-12 (IL-12) family members are heterodimer glycoproteins, composed of two covalently linked subunits, alpha and beta chains. The alpha-subunit consists of IL-23p19, IL-27p28, and IL-12p35, and the beta-subunit includes IL-12p40 and Epstein-Barr virus-induced gene (Ebi3). IL-12 members bind to cognate heterodimeric receptor chains expressed on T cells. This family includes IL-12, IL-23, IL-27, IL-35 and IL-39. IL-12 and IL-23 are predominantly proinflammatory cytokines that contribute key roles in the development of Th1 and Th17 cells, respectively. IL-27 has both pro- and anti-inflammatory properties and is a potent T cell immunomodulator. IL-35, a new member of this family, is a potent inhibitory cytokine produced by natural, thymus-derived regulatory T cell (nTreg) populations. IL-39, the newest member of the IL-12 family, mediates the inflammatory response through the activation of STAT1/STAT3 signaling pathway. These IL-12 family members link innate immunity with the development of adaptive immunity and are also important for regulating T cell responses. Interleukin-23 (IL-23) is composed of the IL-12 p40 chain covalently linked to p19, a chain related to the IL-12 p35 subunit. IL-23 signals through the IL-23 receptor complex, which is composed of the IL-12Rbeta1 chain and a gp130-like chain, IL-23R. Triggering of the IL-23 receptor complex leads to the activation of Tyk2, Jak2 and STAT1, 3 and 4. IL-23 induces IFN-gamma production, Th1 cell differentiation and activation of the antigen-presenting functions of dendritic cells. IL-23 induces autoimmune inflammation and thus may be responsible for autoimmune inflammatory diseases and important for tumorigenesis. The protein IL-23 (mouse):Fc (LALA-PG)-KIH (human) (rec.) is produced by using two different vectors, one encoding for the IL-23A/p19:Fc Knobs sequence (synthesizing a protein of 55 kDa) and one encoding for the IL-12B/p40:Fc Holes sequence (synthesizing a protein of 75 kDa). Both vectors transfected into CHO cells produce both Fc molecules (Knobs-into-Holes technology, J.B. Ridgway, et al., Protein Eng. 9, 617 (1996)) required for dimerization and for secretion of the final protein IL-23 (mouse):Fc (LALA-PG)-KIH (human) (rec.). The Fc contains the mutations LALA-PG that abolish the interaction between the Fc and FcγRs and therefore Fc undesirable effects. InVivoKines™ are a new generation of recombinant fusion proteins for immunotherapeutic, preclinical and translational in vivo research

Molecular Weight: ~75kDa and 55 kDa (SDS-PAGE)

UniProt: [Q9EQ14](#), [P43432](#)

Application Details

Restrictions: For Research Use only

Handling

Format:	Lyophilized
Reconstitution:	1 mg/mL after reconstitution.
Concentration:	1 mg/mL
Buffer:	Contains PBS
Handling Advice:	After reconstitution, prepare aliquots and store at -20 °C. Avoid freeze/thaw cycles.Centrifuge lyophilized vial before opening and reconstitution. PBS containing at least 0.1 % BSA should be used for further dilutions.
Storage:	4 °C,-20 °C
Storage Comment:	Short Term Storage: +4°C Long Term Storage: -20°C Use & Stability: Stable for at least 6 months after receipt when stored at -20°C.Working aliquots are stable for up to 3 months when stored at -20°C.